



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2022-0590; Project Identifier MCAI-2021-01395-T]

RIN 2120-AA64

**Airworthiness Directives;** MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain MHI RJ Aviation ULC Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes.

This proposed AD was prompted by a determination that a certain nondestructive test (NDT) procedure associated with a certain airworthiness limitation for inspecting surface and subsurface fatigue cracks at fuselage station (FS) 460 and FS513 does not address all required inspections. This proposed AD would require using a revised NDT procedure when performing an airworthiness limitation task. This proposed AD would also prohibit the use of earlier revisions of that NDT procedure. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact MHI RJ Aviation Group, Customer Response Center, 3655 Ave. des Grandes-Tourelles, Suite 110, Boisbriand, Québec J7H 0E2 Canada; North America toll-free telephone 833-990-7272 or direct-dial telephone 450-990-7272; fax 514-855-8501; email [thd.crj@mhirj.com](mailto:thd.crj@mhirj.com); Internet <https://mhirj.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0590; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Deep Gaurav, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; email: [deep.gaurav@faa.gov](mailto:deep.gaurav@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include

“Docket No. FAA-2022-0590; Project Identifier MCAI-2021-01395-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Deep Gaurav, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; email: [deep.gaurav@faa.gov](mailto:deep.gaurav@faa.gov). Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2021-47, dated December 13, 2021 (TCCA AD CF-2021-47) (referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain MHI RJ Aviation ULC Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. You may examine the MCAI on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0590.

This proposed AD was prompted by a determination that the NDT procedure specified in MHI RJ CRJ200 Nondestructive Testing Manual (NDTM) Part 6 – Eddy Current, procedure number 53-41-194, dated October 10, 2020, associated with airworthiness limitation task number 53-41-194 does not address all required inspections. MHI RJ CRJ200 NDTM Part 6 – Eddy Current, procedure number 53-41-194, dated October 10, 2020, is a NDT procedure for the special detailed inspection (eddy current inspection) for surface and subsurface fatigue cracks at FS460 and FS513 referenced in airworthiness limitation task number 53-41-194. Airworthiness limitations are the outside marker to ensure the continued safety of an airplane but in this case, the procedure associated with the airworthiness limitation was inadequate, leading to missed fatigue cracking in these airplanes. The FAA is proposing this AD to address such fatigue cracks, which could result in failure of the pressure floor skin and consequent rapid decompression of the airplane during flight. See the MCAI for additional background information.

#### **Related Service Information Under 1 CFR Part 51**

MHI RJ Aviation ULC has issued MHI RJ CRJ200 NDTM Temporary Revision 53-109, dated March 5, 2021. This temporary revision describes a NDT procedure to do a special detailed inspection (eddy current inspection) for surface and subsurface cracks at FS460 and FS513. This service information is reasonably available because the interested

parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

### **Proposed AD Requirements in this NPRM**

This proposed AD would require using a revised NDT procedure when performing a certain airworthiness limitation task. This AD also prohibits the use of earlier revisions of that NDT procedure when performing that airworthiness limitation task.

### **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 427 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

#### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
6 work-hours X \$85 per hour = \$510	\$0	\$510	\$217,770

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

#### **MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.):**

Docket No. FAA-2022-0590; Project Identifier MCAI-2021-01395-T.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by  
[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL  
REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to MHI RJ Aviation ULC Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, serial numbers 7003 through 8079 inclusive, on which Bombardier Service Bulletin 601R-53-067 and/or Bombardier Service Bulletin 601R-53-077 has been incorporated.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

#### **(e) Unsafe Condition**

This AD was prompted by a determination that a certain nondestructive test procedure associated with a certain airworthiness limitation for inspecting surface and subsurface fatigue cracks at fuselage station (FS) 460 and FS513 does not address all required inspections. The FAA is issuing this AD to address such fatigue cracks, which

could result in failure of the pressure floor skin and consequent rapid decompression of the airplane during flight.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Maintenance Procedure Limitation**

As of the effective date of this AD, use MHI RJ CRJ200 Nondestructive Testing Manual (NDTM) Part 6 – Eddy Current, procedure number 53-41-194, Special Detailed Inspection of the Pressure Floor at FS460.00 and/or FS513.00 Between LBL18.00 and RBL18.00, as specified in MHI RJ CRJ200 NDTM Temporary Revision 53-109, dated March 5, 2021, when performing airworthiness limitation task number 53-41-194.

Note 1 to paragraph (g): MHI RJ CRJ200 NDTM Temporary Revision 53-109, dated March 5, 2021, revises procedure number 53-41-194 specified in airworthiness limitation task number 53-41-194, which can be found in Appendix B, Airworthiness Limitations, in Part 2, Airworthiness Requirements, of the MHI RJ CL-600-2B19 Maintenance Requirements Manual, CSP A-053.

**(h) Maintenance Procedure Prohibition**

As of the effective date of this AD, it is prohibited to use MHI RJ CRJ200 NDTM Part 6 – Eddy Current, procedure number 53-41-194, dated October 10, 2020, or earlier revisions when performing airworthiness limitation task number 53-41-194.

**(i) Special Flight Permit**

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the airplane to a location where the airplane can be inspected, provided the flight is a non-revenue flight.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:



(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or MHI RJ Aviation ULC's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2021-47, dated December 13, 2021, for related information for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0590.

(2) For more information about this AD, contact Deep Gaurav, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; email: [deep.gaurav@faa.gov](mailto:deep.gaurav@faa.gov).

(3) For service information identified in this AD, contact MHI RJ Aviation

Group, Customer Response Center, 3655 Ave. des Grandes-Tourelles, Suite 110, Boisbriand, Québec J7H 0E2 Canada; North America toll-free telephone 833-990-7272 or direct-dial telephone 450-990-7272; fax 514-855-8501; email [thd.crj@mhij.com](mailto:thd.crj@mhij.com); Internet <https://mhij.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on May 24, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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